



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Sindo Kou  
Jia-Jie He

Date: May 21, 2002

Docket No.: 032026:0546

Serial No.: 09/834,791

Group Art Unit: 1765

Filed: April 13, 2001

Examiner: Matthew J. Song

For: **GROWING OF HOMOGENEOUS CRYSTALS BY BOTTOM SOLID FEEDING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C. 20231 on May 21, 2002.

\_\_\_\_\_  
Harry C. Engstrom  
(Name of applicant, assignee  
or Registered Representative)

\_\_\_\_\_  
*Harry C. Engstrom*  
(Signature)

\_\_\_\_\_  
May 21, 2002  
(Date of Signature)

COPY OF PAPERS  
ORIGINALLY FILED

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
U.S. Patent and Trademark Office  
Washington, D.C. 20231

Dear Sir:

In response to the Office Action of April 24, 2002, the time for response set to expire as of May 24, 2002, applicant provisionally elects the claims of Group II, Claims 13-37, and requests reconsideration and withdrawal of the restriction requirement for the reasons discussed below.

RECEIVED  
JUN 11 2002  
TC 1700

The Office Action imposed a restriction between Claims 1-12, drawn to an apparatus, and Claims 13-37, drawn to a method. The inventions of these two sets of claims were said to be distinct on the grounds that the apparatus claimed can be used to practice another and materially different process such as melting the feed material in the upper and lower portions of the crucible.

There should be no question that both apparatus and method claims in this application are closely related to one another, and that the apparatus Claims 1-12 are directed to an apparatus that is formed to carry out the method of the method claims. The features of the apparatus claims enable the method to be carried out and relate to the method claims. For example, apparatus Claim 1 specifies an upper heater around the crucible to apply heat to an upper portion of the crucible. Method Claim 13 specifies heating an upper portion of the crucible with an upper heater to a temperature sufficient to melt the feed material in an upper portion of the crucible. Claim 1 specifies a lower heater around the crucible below the upper heater to apply heat to a lower portion of the crucible, the lower heater operable independently of the upper heater so that the heat applied by the upper heater and the lower heater of the crucible can be selected. Claim 13 specifies separately heating a lower portion of the crucible with a lower heater to another temperature which is below the melt temperature of the feed material so that the feed material in the lower portion of the crucible remains solid. Claim 1 specifies an axially advancable crucible support under the crucible on which the crucible is supported. Claim 13 specifies advancing the crucible with respect to the heaters as the crucible is drawn from the melt to heat additional portions of solid feed material with the upper heater to heat the additional solid material to replace the crystal drawn from the melt.

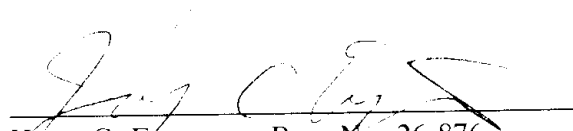
COPY OF PAPER  
ORIGINAL FILED

RECEIVED  
JUN 11 2002  
TC 1700

As the foregoing example shows, the apparatus and method claims are very closely related, such that a search directed to one set of claims would necessarily overlap with a search directed to the other set of claims.

For the foregoing reasons, it is submitted that all of the claims in the application should properly be examined and considered together, and withdrawal of the restriction requirement is respectfully requested.

Respectfully submitted,



Harry C. Engstrom, Reg. No. 26,876  
Attorney for Applicants  
Foley & Lardner  
150 East Gilman Street  
Post Office Box 1497  
Madison, Wisconsin 53701-1497  
(608) 258-4207